

Title (en)

Method and arrangement to determine a wind-speed

Title (de)

Verfahren und Anordnung zum Bestimmen einer Windgeschwindigkeit

Title (fr)

Procédé et agencement pour déterminer la vitesse du vent

Publication

EP 2175281 A1 20100414 (EN)

Application

EP 08017664 A 20081008

Priority

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Abstract (en)

The invention relates to a method and to an arrangement to determine the speed of the wind, which acts on a wind-blade of a wind-turbine. According to the invention an optical-signal with a known frequency is sent from an optical-transmit-unit to a joint measurement volume. The optical-signal is scattered and reflected by atmospheric particles of the joint measurement volume. The optical signal is shifted in its frequency due to the Doppler-principle, too. The frequency-shifted optical signal is received by a receive-unit. The frequency-shifted optical signal is compared with the sent optical-signal to determine the wind-speed based on the shifted frequency, which is caused by the atmospheric particles.

IPC 8 full level

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Citation (applicant)

WO 2004077068 A1 20040910 - QINETIQ LTD [GB], et al

Citation (search report)

- [X] WO 2004077068 A1 20040910 - QINETIQ LTD [GB], et al
- [A] VAUGHAN J M ET AL: "LASER DOPPLER VELOCIMETRY APPLIED TO THE MEASUREMENT OF LOCAL AND GLOBAL WIND", WIND ENGINEERING, MULTI-SCIENCE PUBLISHING CO., BRENTWOOD, ESSEX, GB, vol. 13, no. 1, 1 January 1989 (1989-01-01), pages 1 - 15, XP002057358, ISSN: 0309-524X

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GB2532585A; CN107002636A; GB2532585B; US9109576B2; US11441542B2; WO2014133424A1; WO2016078669A1

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